



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0527; Directorate Identifier 2013-CE-014-AD]

RIN 2120-AA64

Airworthiness Directives; PIAGGIO AERO INDUSTRIES S.p.A Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all PIAGGIO AERO INDUSTRIES S.p.A Model P-180 airplanes. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as cracks at the joint between the hinge pin sub-assembly and the lock pin of the main landing gear lever hinge fitting. We are issuing this proposed AD to require actions to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Piaggio Aero Industries S.p.A - Airworthiness Office, Via Luigi Cibrario, 4-16154 Genova-Italy; phone: +39 010 6481353; fax: +39 010 6481881; email: airworthiness@piaggioaero.it; Internet: <http://www.piaggioaero.com/#/en/aftersales/service-support>; and Messier-Dowty Limited, Cheltenham Road, Gloucester, GL2 9QH, England; phone: +44(0)1452 712424; fax: +44(0)1452 713821; email: americatassc@safranmbd.com; Internet: www.safranmbd.com. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the ADDRESSES section.

Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Mike Kiesov, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4144; fax: (816) 329-4090; email: mike.kiesov@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0527; Directorate Identifier 2013-CE-014-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued AD No. 2013-0084, dated April 5, 2013 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

During scheduled maintenance, cracks have been detected at the joint between the hinge pin sub-assembly and the lock pin of the main landing gear (MLG) lever hinge fitting (LHF) of a Piaggio P.180 aeroplane.

The results of the subsequent investigation revealed that the cracks were initiated by an unforeseen friction in the MLG wheel lever sub-assembly.

This condition, if not detected and corrected, could lead to a structural failure of the MLG, possibly resulting in loss of control of the aeroplane during take-off or landing runs.

To address this potential unsafe condition, Piaggio Aero Industries (PAI) issued Service Bulletin (SB) 80-0345 to provide instructions for early identification of cracks in the MLG LHF and, in case of identification of the crack, replacement of the MLG.

For the reasons described above, this AD required inspections of the MLG LHF and, depending on findings, replacement of the MLG.

This AD is considered to be an interim action, and based on gathered experience, further AD action may follow.

You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

PIAGGIO AERO INDUSTRIES S.p.A. has issued Mandatory Service Bulletin No. 80-0345, and Appendix A, both dated September 20, 2012, which includes Messier-Dowty Service Bulletin No. P180-32-32, dated September 10, 2012. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of the Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with this State of Design Authority, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Interim Action

We consider this AD interim action. We are requiring inspection(s) of the left and right MLG LHF with a report to the manufacturer of the results if cracks are found. We will work with the type certificate holder to evaluate the report results to determine repetitive inspection intervals and subsequent terminating action. Based on this evaluation, we may initiate further rulemaking action to address the unsafe condition identified in this AD.

Costs of Compliance

We estimate that this proposed AD will affect 109 products of U.S. registry. We also estimate that it would take about 11 total work-hours, which is 2 work-hours for the initial visual inspection; 2 work-hours for the detailed visual inspection; and 7 work-hours for the fluorescent penetrant inspection, per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$101,915, or \$935 per product.

In addition, we estimate that any necessary follow-on actions would take about 7 work-hours and require parts costing \$21,540 to replace a left-hand LHF, for a cost of \$22,153, and \$20,662 to replace a right-hand LHF, for a cost of \$21,257.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new AD:

PIAGGIO AERO INDUSTRIES S.p.A: Docket No. FAA-2013-0527; Directorate Identifier 2013-CE-014-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to PIAGGIO AERO INDUSTRIES S.p.A Model P-180 airplanes, all serial numbers, certificated in any category.

(d) Subject

Air Transport Association of America (ATA) Code 32: Landing Gear.

(e) Reason

This AD was prompted by results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as cracks at the joint between the hinge pin sub-assembly and the lock pin of the main landing gear (MLG) lever hinge fitting (LHF). We are issuing this AD to prevent structural failure of the MLG LHF, which could result in loss of control during take-off or landing runs.

(f) Actions and Compliance

Unless already done, do the following actions in paragraphs (f)(1) through (f)(8), including all subparagraphs, of this AD:

(1) Within the next 200 hours time-in-service (TIS) after the effective date of this AD or within the next 3 months after the effective date of this AD, whichever occurs first, and repetitively thereafter before further flight after each MLG (subassembly) replacement, visually inspect each MLG LHF for cracks and verify freedom of rotation of the MLG wheel lever subassemblies. Do the inspection following Part 1 of the Accomplishment Instructions in PIAGGIO AERO INDUSTRIES S.p.A. Mandatory

Service Bulletin No. 80-0345, dated September 20, 2012; and Paragraph A of the Accomplishment Instructions in PIAGGIO AERO INDUSTRIES S.p.A. Appendix A, dated September 20, 2012, which includes Messier-Dowty Service Bulletin No. P180-32-32, dated September 10, 2012.

(2) If, during the inspection required in paragraph (f)(1) of this AD, freedom of rotation of the MLG wheel lever subassembly is not assured, before further flight, mark the LHF on the affected MLG as “inspect as per SB-80-0345” with an indelible pen, and replace the MLG LHF with a serviceable part. Do the replacement following Part 1 of the Accomplishment Instructions in PIAGGIO AERO INDUSTRIES S.p.A. Mandatory Service Bulletin No. 80-0345, dated September 20, 2012. The newly installed MLG LHF is subject to the repetitive inspection requirement specified in paragraph (f)(1) of this AD and all inspection requirements specified in paragraphs (f)(3) and (f)(4) of this AD.

(3) Within the compliance times specified in paragraphs (f)(3)(i), (f)(3)(ii), and (f)(3)(iii) of this AD, and repetitively thereafter at intervals not to exceed 200 hours TIS, do a detailed visual inspection of each MLG LHF for cracks. Do the inspection following Part 2 of the Accomplishment Instructions in PIAGGIO AERO INDUSTRIES S.p.A. Mandatory Service Bulletin No. 80-0345, dated September 20, 2012, and Paragraph B of the Accomplishment Instructions in PIAGGIO AERO INDUSTRIES S.p.A. Appendix A, dated September 20, 2012, that includes Messier-Dowty Service Bulletin No. P180-32-32, dated September 10, 2012.

(i) As of the effective date of this AD, if the MLG LHF has accumulated 2,300 hours TIS or less since new, inspect before exceeding 2,500 hours TIS since new.

(ii) As of the effective date of this AD, if the MLG LHF has accumulated more than 2,300 hours TIS since new, but less than 2,500 hours TIS since new, inspect within the next 200 hours TIS after the effective date of this AD.

(iii) As of the effective date of this AD, if the MLG LHF has accumulated 2,500 hours TIS or more since new, inspect within the next 200 hours TIS after the effective date of this AD or within the next 3 months after the effective date of this AD, whichever occurs first.

(4) Within the compliance times specified in paragraphs (f)(3)(i), (f)(3)(ii), and (f)(3)(iii) of this AD and repetitively thereafter at intervals not to exceed 750 hours TIS, do a fluorescent penetrant inspection on each MLG LHF for cracks. Do the inspection following Part 3 of the Accomplishment Instructions in PIAGGIO AERO INDUSTRIES S.p.A. Mandatory Service Bulletin No. 80-0345, dated September 20, 2012, and Paragraph C of the Accomplishment Instructions in PIAGGIO AERO INDUSTRIES S.p.A. Appendix A, dated September 20, 2012, that includes Messier-Dowty Service Bulletin No. P180-32-32, dated September 10, 2012.

(5) If, during any inspection required by paragraphs (f)(1), (f)(3), (f)(4), (f)(7), and (f)(8) of this AD, including all subparagraphs, any crack is found, before further flight, replace the MLG with a serviceable part. Do the replacement following the Accomplishment Instructions in PIAGGIO AERO INDUSTRIES S.p.A. Mandatory Service Bulletin No. 80-0345, dated September 20, 2012. After installing a serviceable MLG, continue with the repetitive inspection requirements of paragraphs (f)(1), (f)(3), and (f)(4) this AD.

(6) Within 30 days after each MLG LHF replacement, submit an inspection result report to PIAGGIO AERO INDUSTRIES S.p.A at the address specified in paragraph (h) of this AD using the Confirmation Slip attached to PIAGGIO AERO INDUSTRIES S.p.A. Mandatory Service Bulletin No. 80-0345, dated September 20, 2012.

(7) For the purpose of this AD, a “serviceable” MLG is an airworthy MLG verified before installation for freedom of rotation and has been inspected following paragraphs (f)(3) and (f)(4) of this AD, including all subparagraphs, and is found free of cracks. If status of detailed visual inspections intervals, fluorescent penetrant inspections intervals, or hours TIS since new cannot be determined from the Authorized Release Certificate of the MLG to be installed, before next flight after installation, inspect the MLG LHF as specified in paragraphs (f)(3) and (f)(4) of this AD. Any newly install MLG LHF is subject to the repetitive inspections required in paragraphs (f)(1), (f)(3), and (f)(4) of this AD.

(8) As of the effective date of this AD, any MLG with LHF marked “inspect as per SB 80-0345” that was removed as specified in paragraph (f)(2) of this AD may be reinstalled provided that before installation, freedom of rotation has been restored. Before further flight after installation, the MLG LHF must be inspected as specified in paragraphs (f)(3) and (f)(4) of this AD. Continue thereafter with the repetitive inspections at the intervals specified paragraphs (f)(1), (f)(3), and (f)(4) of this AD.

(g) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) **Alternative Methods of Compliance (AMOCs):** The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Mike Kiesov, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4144; fax: (816) 329-4090; email: mike.kiesov@faa.gov. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) **Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) **Reporting Requirements:** For any reporting requirement in this AD, a federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(h) Related Information

(1) Refer to MCAI European Aviation Safety Agency (EASA) AD No. 2013-0084, dated April 5, 2013; Messier-Dowty PCS-2700 Paint Stripping document, dated January 2011; Messier-Dowty PCS-2622 Cold Degreasing (Solvent) document, Issue 2, dated May 12, 2008; and Messier-Dowty Ltd 201034005 and 201034006 Component Maintenance Manual, page 2, dated May 1, 2004, and page 1020, dated March 17, 2006, for related information.

(2) For service information identified in and related to this AD, contact Piaggio Aero Industries S.p.A - Airworthiness Office, Via Luigi Cibrario, 4-16154 Genova-Italy; phone: +39 010 6481353; fax: +39 010 6481881; email: airworthiness@piaggioaero.it; Internet: <http://www.piaggioaero.com/#/en/aftersales/service-support>; and Messier-Dowty Limited, Cheltenham Road, Gloucester, GL2 9QH, England; phone: +44(0)1452 712424; fax: +44(0)1452 713821; email: americatasc@safranmbd.com; Internet: www.safranmbd.com. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on June 13, 2013.

Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service.

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